

The opinion in support of the decision being entered today was *not* written for publication and is *not* binding precedent of the Board

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* ROBERT FARR and MARK NICMANIS

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Appeal 2007-2488  
Application 10/081,483  
Technology Center 1700

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Decided: August 24, 2007

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Before SALLY GARDNER LANE, SALLY C. MEDLEY, and MICHAEL P. TIERNEY, *Administrative Patent Judges*.

LANE, *Administrative Patent Judge*.

DECISION ON APPEAL

1    I.    **Statement of the case**

2       This ex parte appeal under 35 U.S.C. § 134(a) is from the rejections of  
3       claims 1 and 3-18.

4       We affirm the rejections.

5       We have jurisdiction under 35 U.S.C. § 6(b).

Appeal 2007-2488  
Application 10/081,483

1       The application was filed on 22 February 2002. The real party in  
2 interest is said to be Unilever Bestfoods, North America, a division of  
3 Conopco, Inc. (Br. at 3).

4       The following U.S. patents were relied upon by the Examiner:

	<u>Name</u>	<u>Patent No.</u>	<u>Issue Date</u>
6	Berg, Jr.	3,947,567	30 March 1976
7	Rudick	5,135,137	4 August 1992
8	Kohler	5,143,288	01 Sept. 1992
9	Hoffman	5,747,079	05 May 1998
10	Denton	5,971,357	26 Oct. 1999

11  
12       In addition, the following publications were relied upon by the  
13 Examiner:

	<u>Name</u>	<u>Publication No.</u>	<u>Pub. Date</u>
15	Frutin I	WO 98/36671	27 August 1998
16	Frutin II	WO 97/21605	19 June 1997
17	Bergman	SE 9801752 (abstract)	19 Nov. 1999

18       The following six grounds of rejection are appealed:<sup>1</sup>  
19       Claims 1-3, 5-8, 15, and 16 are rejected under 35 U.S.C. § 102(b) as  
20 being anticipated by Frutin I “as evidenced by Rudick” (Answer at 3-4).

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<sup>1</sup> Farr submits that “it is not clear on the record as to why the Final Rejection is proper” since Rudick is said to have been made of record for the first time in the final rejection. (Br. at 7). Whether or not a final rejection is proper is not a ground for appeal to the Board of Patent Appeals and Interferences but rather is an issue that can be raised by petition under 37 C.F.R. § 1.181. See also MPEP 706.07(c) and 1002.03(c).

1       Claims 12 and 13 are rejected under 35 U.S.C. § 103(a) as being  
2 unpatentable over Frutin I and Rudick as applied to claims 1, 3, 5-8, 15, and  
3 16 and further in view of Kohler. (Answer at 4-5).

4       Claim 14 is rejected under 35 U.S.C. § 103(a) as being unpatentable  
5 over Frutin I in view of Kohler as applied to claims 12 and 13 and further in  
6 view of Berg, Jr. (Berg) (Answer at 5-6).

7       Claims 17 and 18 are rejected under 35 U.S.C. § 103(a) as being  
8 unpatentable over Frutin I as applied to claims 1, 3, 5-8, 15, and 16 and  
9 further in view of Frutin II. (Answer at 6-7).

10      Claims 1, 4, 9, and 10 are rejected under 35 U.S.C. § 103(a) as being  
11 unpatentable over Hoffman in view of Denton. (Answer at 7-8).

12      Claim 11 is rejected under 35 U.S.C. § 103(a) as being unpatentable  
13 over Hoffman in view of Denton as applied to claims 1, 4, 9, and 10 and  
14 further in view of Bergman. (Answer at 8-9).

15      For each ground of rejection where a group of claims stand rejected,  
16 we have selected a representative claim for the group since no claim within a  
17 group has been argued separately in the Appeal Brief. See 37 C.F.R. §  
18 41.37(c)(vii).

19      In this decision we refer to the Applicants as “Farr”.

20 **II. Findings of fact**

21      The record supports the following findings of fact as well as any other  
22 findings of fact set forth in this decision by a preponderance of the evidence.

23      1. Claim 1, below, illustrates the claimed invention:

24      A beverage product comprising a dispenser and a beverage in which  
25 the dispenser has a container for holding the beverage and a valve which  
26 is biased to a position where it seals the container but which is openable

1 to enable the beverage to be dispensed from the container and in which  
2 the beverage is a liquid having a sparingly soluble effervescence inducing  
3 gas dissolved therein, the beverage product being characterized in that the  
4 beverage is held under a gaseous pressure in the head space above the  
5 liquid beverage in the container that is sufficient to cause the beverage to  
6 be discharged directly into the mouth of a consumer from the dispenser  
7 as an effervescent fluid when the valve is open

8  
9 wherein the beverage is held under a gaseous pressure in the  
10 headspace of at least 2.5 atmospheres gauge at 5 to 15° and the valve is  
11 one which is designed to be opened via the consumer's mouth.

- 12  
13 2. According to the Specification, the sparingly soluble effervescence  
14 inducing gas "can be oxygen, nitrogen, nitrous oxide, hydrogen, a  
15 noble gas, a gaseous hydrocarbon or a mixture thereof."  
16 (Specification at 9).
- 17 3. The effervescent beverage results from "placing a liquid beverage in a  
18 container, sealing the container, introducing a sparingly soluble  
19 effervescence inducing gas into the container so that the gaseous  
20 pressure in the headspace of the container is sufficient to cause the  
21 beverage to be discharged from the dispenser as an effervescent fluid  
22 when the valve is open...." (Specification at 5-6).
- 23 4. The dispensed beverage, which is "preferably tea or coffee based, or  
24 water or a flavoured water", is said to "contain very small bubbles of  
25 the sparingly soluble gas and does not give the prickly sensation  
26 produced by effervescence of a more soluble gas such as carbon  
27 dioxide" and is described as "provid[ing] the consumer with a smooth  
28 and silky sensation, which can enhance flavour delivery from a  
29 flavoured beverage." (Specification at 4).

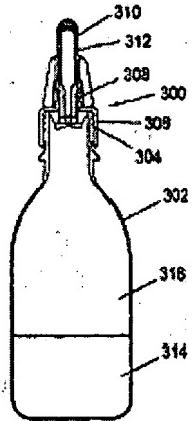
5. Useful valves are said to be those “known for use in pressurized dispensing containers (often known as aerosol cans)...[and] are readily available from several manufacturers.” (Specification at 4 and 10).
  6. “The dispenser preferably includes actuator means that are operable to open the valve to release the liquid beverage from the container” which are “preferably shaped and positioned to be engaged by a user’s mouth or teeth so that the effervescent fluid will be delivered directly into the consumer’s mouth.” (Specification at 10).

## Frutin I

7. Claims 1-3, 5-8, 15, and 16<sup>2</sup> are rejected under 35 U.S.C. § 102(b) as being anticipated by Frutin I “as evidenced by Rudick” (Answer at 3-4).
  8. Claim 1, set forth above, is representative.
  9. Frutin I teaches a beverage container that is partially filled and where the remaining headspace is filled with pressurized gas, e.g., nitrous oxide, where the gas preferably is pressurized between 20psi and 150psi at 5° C. (Frutin I at 2-5 and 12-13).
  10. The lid of the container may be modified by the inclusion of a “standard aerosol valve” which may be a “tilt valve.” (Frutin I at 4).
  11. An example is given at figure 12 showing a container for dispensing whipped cream having a “conventional aerosol valve” 308 that is fitted with a serrated nozzle 310 for producing “an attractive pattern on the cream as it is dispensed.” (Frutin I at 18).

<sup>2</sup> The claims are argued together as to this rejection.

1       12. Figure 12 is shown below:



2

3       13. "In this example [at figure 12]...and [sic - an] end user simply  
4           removes the end cap 312, shakes the bottle, directs the nozzle end  
5           downwards and presses against the side of the nozzle 310 [to open the  
6           valve]." (Frutin I at 18).

7       14. Frutin I teaches the density of the dispensed liquid may be controlled  
8           by the ratio of headspace and gas pressure. (Frutin I at 20).

9       15. Frutin I shows all the limitations of claim 1.

10      16. Rudick shows a carbonated beverage dispenser having a tilt valve  
11           "similar to a 'whipped cream type' valve" where the valve may be  
12           opened by the consumer's finger and may be placed into the  
13           consumer's mouth for drinking. (Rudick at 5:4-8).

Kohler

17. Claims 12 and 13<sup>3</sup> are rejected under 35 U.S.C. § 103(a) as being unpatentable over Frutin I and Rudick as applied to claims 1, 3, 5-8, 15, and 16 and further in view of Kohler. (Answer at 4-5).

18. Claim 12 is representative and reads as follows:

A beverage product according to claim 1 wherein the container has a dip tube that is attached to the valve inside the container and extends into the interior of the container so that the end of the dip tube is below the level of the beverage when the container is upright so that the effervescent fluid is urged to pass through the dip tube when the valve is open by the pressure of the gas in the headspace.

19. The Examiner found, and Farr does not contest, that Kohler teaches an aerosol spray system having a dip tube and a vapor hole that will enable gas from the headspace to enter the dip tube such that "one can maintain a constant pressure to urge the material out of the container, even as the level reaches the bottom of the container". (Answer at 4-5).

Berg

20. Claim 14 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Frutin I in view of Kohler as applied to claims 12 and 13 and further in view of Berg, Jr. (Berg) (Answer at 5-6).

21. Claim 14 (and claim 13 from which it depends) are as follows:

13. A beverage product according to claims 12, wherein the dip tube has an aperture which communicates between the headspace above the beverage in the container and the interior

<sup>3</sup> The claims are argued together as to this rejection.

of the dip tube enabling gas from the headspace to be entrained in fluid being dispensed through the dip tube when the valve is open.

14. A beverage product according to claim 13, wherein the quantity of gas expelled from the container when the valve is opened is greater than 0.5 cubic centimeters per 1 cubic centimeter of liquid beverage when measured at atmospheric pressure and 20°C.

22. The Examiner found, and Farr does not contest, that Berg teaches "that the conventional effervescent beverage is 1 volume of gas per volume of liquid." (Answer at 5-6).

Frutin II

23. Claims 17 and 18<sup>4</sup> are rejected under 35 U.S.C. § 103(a) as being unpatentable over Frutin I as applied to claims 1, 3, 5-8, 15, and 16 and further in view of Frutin II. (Answer at 6-7).

24. Claims 17 is representative and is as follows:

A beverage product according to claim 1 wherein the sparingly soluble effervescence inducing gas is contained in a widget that releases its contents into the container when the valve is opened.

<sup>4</sup> The claims are argued together as to this rejection.

25. According to the Farr specification, the term "widget" has become a term of art, at least in the brewing industry, to describe a device that releases pressurized gas into a can of beer when the can is opened thereby producing a creamy head typical of draught beer." (Specification at 20).

26. The Examiner found, and Farr does not contest, that Frutin I teaches that “the container may be fitted with a device which injects flavor into the container” and provides an example of such a device as being “a modified version of the device disclosed in Patent document WO 97/21605 [i.e., Frutin II].” (Frutin I at 6).

27. Frutin II teaches “a container [having] a supplemental compartment with a sparingly soluble effervescence inducing gas and a liquid that releases the [flavor] contents upon opening the container, or relieving the pressure within the container.” (Answer at 6; Frutin II at 4 and 14).

Hoffman and Denton

28. Claims 1, 4, 9, and 10<sup>5</sup> are rejected under 35 U.S.C. § 103(a) as being unpatentable over Hoffman in view of Denton et al. (Denton). (Answer at 7-8).

29. Claim 1, set forth above (at FF<sup>6</sup> 1), is representative.

30. Hoffman teaches a container for an oxygenated beverage for controlling halitosis where the beverage is a liquid (e.g., water)

The claims are argued together as to this rejection.

### **Finding of fact.**

1        tea, root beer, juice) containing pressurized oxygen and where the  
2        beverage is stored under a pressure of 2.0 to 6.0 atmospheres to  
3        increase the solubility of the dissolved oxygen. (Hoffman at 2:31-42  
4        and 4:60-67).

- 5        31. The contents of the container may be released by spraying which, as  
6        the Examiner observes, “would involve a valve structure”. (Hoffman  
7        at 2:20-30 and Answer at 7).  
8        32. Denton teaches a fluid delivery valve which is designed to be used in  
9        fluid containing devices such as drinking bottles.  
10       33. The valve is designed to be opened by a user’s mouth and gives the  
11       advantage of allowing for one hand or hands-free use. (Denton at  
12       1:25-43).  
13       34. The valve is said to be useful in pressurized bottles. (Denton at 2:24-  
14       26).  
15       35. The valve is said to allow for a high flow rate. (Denton at 2:17-20).

16                          Bergman

- 17        36. Claim 11 is rejected under 35 U.S.C. § 103(a) as being unpatentable  
18        over Hoffman in view of Denton as applied to claims 1, 4, 9, and 10  
19        and further in view of Bergman. (Answer at 8-9).  
20        37. Claim 11 depends from claim 10, both of which are reproduced  
21        below:

22                          10.       A beverage product according to claim 1 wherein  
23                          the dispenser includes actuator means in the outlet  
24                          portion of the dispenser which are operable to open the  
25                          valve to release the effervescent fluid from the  
26                          container, the actuator means being shaped and  
27                          positioned for engagement by a user’s mouth or teeth

1                   to cause or enable release of liquid directly into the  
2                   user's mouth.

3  
4                 11.       A beverage product according to claim 10, wherein  
5                   the actuator means includes a button mounted in the  
6                   outlet portion, the button being movable between a  
7                   valve-closed position and a valve-open position to  
8                   which it can be moved by a biting action applied to the  
9                   outlet portion.

10  
11                 38. The Examiner found, and Farr does not contest, that Bergman  
12                   teaches a bite valve for feeding water to an animal that is operated by  
13                   biting on a sleeve button such that the amount of beverage dispensed  
14                   is dependent upon the amount of biting pressure. (Answer at 8-9).

15                 39. As noted in its Brief, Farr has not submitted any evidence "pursuant to  
16                   [37 C.F.R.] §§ 1.130, 1.131, and/or 1.132." (Br. at 26).

17                 **III. Issues**

18                 The issues are:

19                 (1)      Whether Farr has shown that the Examiner erred in rejecting  
20                   claims 1-3, 5-8, 15, and 16 under 35 U.S.C. § 102(b) as being anticipated by  
21                   Frutin I "as evidenced by Rudick"

22                 (2)      Whether Farr has shown that the Examiner erred in rejecting  
23                   claims 12 and 13 under 35 U.S.C. § 103(a) as being unpatentable over Frutin  
24                   I and Rudick as applied to claims 1, 3, 5-8, 15, and 16 and further in view of  
25                   Kohler.

26                 (3)      Whether Farr has shown that the Examiner erred in rejecting

Appeal 2007-2488  
Application 10/081,483

1 claim 14 under 35 U.S.C. § 103(a) as being unpatentable over Frutin I in  
2 view of Kohler as applied to claims 12 and 13 and further in view of Berg.

3 (4) Whether Farr has shown that the Examiner erred in rejecting  
4 claims 17 and 18 under 35 U.S.C. § 103(a) as being unpatentable over Frutin  
5 I as applied to claims 1, 3, 5-8, 15, and 16 and further in view of Frutin II.

6 (5) Whether Farr has shown that the Examiner erred in rejecting  
7 claims 1, 4, 9, and 10 under 35 U.S.C. § 103(a) as being unpatentable over  
8 Hoffman in view of Denton.

9 (6) Whether Farr has shown that the Examiner erred in rejecting  
10 claim 11 under 35 U.S.C. § 103(a) as being unpatentable over Hoffman in  
11 view of Denton as applied to claims 1, 4, 9, and 10 and further in view of  
12 Bergman.

13

1           **IV.       Legal principles**

2           We read the claims in view of the Specification. A limitation may not  
3   be read into a claim from the Specification, but it is appropriate to look to  
4   the Specification to define a limitation already in the claim. *Elekta Instr.*  
5   *S.A. v. O.U.R. Sci. Int'l, Inc.*, 214 F.3d 1302, 1307, 54 USPQ2d 1910, 1913  
6   (Fed. Cir. 2000).

7           35 U.S.C. § 102

8           “A person shall be entitled to a patent unless ....the invention was  
9   patented or described in a printed publication in this or a foreign country or  
10   in public use or on sale in this country, more than one year prior to the date  
11   of the application for patent in the United States” 35 U.S.C. § 102(b).

12          To anticipate a claim, a prior art reference must disclose every  
13   limitation of the claimed invention, either expressly or inherently.  
14   *Verdegaal Bros. v. Union Oil Co.*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053  
15   (Fed. Cir. 1987).

16          "To establish inherency, the extrinsic evidence 'must make clear that  
17   the missing descriptive matter is necessarily present in the thing described in  
18   the reference, and that it would be so recognized by persons of ordinary  
19   skill.' 'Inherency, however, may not be established by probabilities or  
20   possibilities. The mere fact that a certain thing may result from a given set of  
21   circumstances is not sufficient.'" *In re Robertson*, 169 F.3d 743, 745, 49  
22   USPQ2d 1949, 1950-51 (Fed. Cir. 1999) (citations omitted). “[A]fter the  
23   PTO establishes a prima facie case of anticipation based on inherency, the  
24   burden shifts to appellant to 'prove that the subject matter shown to be in the

1 prior art does not possess the characteristic relied on.”” *In re Swinehart*, 439  
2 F.2d 210, 212-13, 169 USPQ 226, 229 (CCPA 1971).”

3 35 U.S.C. § 103

4 “A patent may not be obtained though the invention is not identically  
5 disclosed or described as set forth in section 102 of this title, if the  
6 differences between the subject matter sought to be patented and the prior art  
7 are such that the subject matter as a whole would have been obvious at the  
8 time the invention was made to a person having ordinary skill in the art to  
9 which said subject matter pertains.” 35 U.S.C. § 103(a).

10 There need not be explicit suggestion in the prior art to combine the  
11 teachings of prior art references. As stated by the Supreme Court of the  
12 United States, “[t]he obviousness analysis cannot be confined by a  
13 formalistic conception of the words teaching, suggestion, and motivation, or  
14 by overemphasis on the importance of published articles and the explicit  
15 content of issued patents.” *KSR Intl’l Co. v. Teleflex, Inc.*, 127 S. Ct. 1727,  
16 1741, 82 USPQ2d 1385, 1396 (2007). Therefore “[t]he combination of  
17 familiar elements according to known methods is likely to be obvious when  
18 it does no more than yield predictable results.” *KSR*, 127 S.Ct. at 1739, 82  
19 USPQ2d at 1395. Moreover, “if a technique has been used to improve one  
20 device and a person of ordinary skill in the art would recognize that it would  
21 improve similar devices in the same way, using the technique is obvious  
22 unless its actual application is beyond his or her skill.” *KSR*, 127 S.Ct. at  
23 1731, 82 USPQ2d at 1389.

24 In determining whether claimed subject matter would have been  
25 obvious we take into consideration (1) the scope and content of the prior art,

1       (2) any differences between the claimed invention and the prior art, (3) the  
2       level of skill in the art, and (4) any relevant objection evidence of  
3       obviousness or non-obviousness. *KSR* 127 S.Ct. at 1731, 82 USPQ2d at,  
4       1389 (2007), *Graham v. John Deere Co. of Kansas City*, 383 U.S. 1, 17-18  
5       (1966). The references of record may be relied upon to show of the level of  
6       skill in the art. *In re GPAC*, 57 F.3d 1573, 1579, 35 USPQ2d 1116, 1121  
7       (Fed. Cir. 1995).

8           We have considered only those arguments made before us in coming  
9       to our decision. Arguments not made are waived. See 37 C.F.R. § 41.37(c)  
10      (1) (vii) (2004).

11

12      **V. Analysis**

13      *A. Frutin I*

14           The Examiner has rejected claims 1, 3, 5-8, 15, and 16 as being  
15       anticipated by Frutin I. The Examiner further directs us to Rudick which is  
16       said to provide evidence that a tilt design valve like that used in Frutin I is  
17       capable of being opened with the mouth.

18           As set forth above (FFs 9-15), we find that Frutin I teaches each  
19       element of the subject matter under rejection.

20           Farr argues that Frutin I does not teach the discharge of an  
21       effervescent beverage. (Br. at 9). We disagree. While Frutin I may not use  
22       the term “effervescent beverage”, Frutin I, like Farr, teaches placing a liquid  
23       beverage in the container along with “a sparingly soluble effervescent  
24       inducing gas” such as nitrous oxide. (FFs 3 and 9). Such a teaching is a  
25       sufficient basis to support the Examiner’s determination that Frutin I teaches

1    “a liquid having a sparingly soluble effervescence inducing gas dissolved  
2    therein” as required by claim 1. Farr has not directed us to any evidence to  
3    the contrary. The argument of counsel is not evidence. *In re Geisler*, 116  
4    F.3d 1465, 1470, 43 USPQ2d 1362, 1366 (Fed. Cir. 1997).

5                 Farr argues that Frutin I does not describe a valve that is designed to  
6    be opened via the consumer’s mouth. While Frutin I does not describe  
7    opening the valve via the consumers mouth, it appears to us that the valve  
8    easily could be used in such a way as with the valve of a conventional  
9    whipped cream dispenser. We find that the examiner has met the burden of  
10   showing a sufficient basis to support a determination that the tilt valve  
11   shown in Frutin I would inherently be openable “via the consumer’s mouth”.  
12   Given this showing, it is Farr’s burden to show that the valve shown in  
13   Frutin I does not inherently possess the feature of being openable by the  
14   mouth. Farr has argued, but has not directed us to evidence, showing that  
15   the valve of Frutin I could not be used in the mouth.

16                Farr argues that the tilt valve described in Frutin I is “serrated with  
17   sharp notches or teeth” such that inserting it into the mouth would “certainly  
18   cause injury.” (Br. at 9-10). However, Farr has not directed us to any  
19   portion of Frutin I that describes the serrated portion of the valve as having  
20   “sharp notches or teeth.”<sup>7</sup> Again, Farr has presented only attorney argument  
21   and not evidence that would establish that the valve shown in Frutin I is not  
22   suitable for placing in the mouth.

---

<sup>7</sup> Farr directs us to reference number 310 at Figure 4. (Br. at 9). Figure 4 does not have a reference number 310. Our understanding is that Farr meant to refer to Figures 12 and 13 where there is a reference number 310.

1       The Examiner has directed us to Rudick as evidence to support the  
2 rejection under 35 U.S.C. § 102(b). However, since Frutin I teaches all the  
3 elements of the claimed subject matter, we need not and do not consider  
4 Rudick.

5       We affirm Examiner's rejection of claims 1, 3, 5-8, 15, and 16 as  
6 being anticipated by Frutin I.

7       *B. Frutin I and Kohler*

8       The Examiner has rejected claims 12 and 13 under 35 U.S.C. § 103(a)  
9 over the combination of Frutin I and Kohler. As acknowledged by Farr,  
10 claims 12 and 13 "further define the independent claims by the inclusion of a  
11 specific dip tube that has an aperture which communicates between the  
12 headspace above the beverage in the container and the interior of the dip  
13 tube..." (Br. at 11).

14       Farr does not argue that Kohler fails to teach the dip tube and aperture  
15 as claimed. Instead Farr argues that "[o]ne would not combine the teachings  
16 associated with an aerosol spray with that of a container that is to be opened  
17 prior to the consumption of a beverage." (Br. at 12). We disagree.

18       Kohler teaches aerosol valves having dip tubes with vapor tap holes.  
19 According to Kohler, such valves give the advantage of allowing for a  
20 constant pressure so that all the material within the container can be  
21 expelled. (FF 19). As recognized by the Examiner, one skilled in the art  
22 would have had ample reason to use the aerosol valve of Kohler, which has a  
23 dip tube, in the whipped cream dispensing container of Frutin I, which calls  
24 for a "conventional aerosol valve" (Answer at 5; FF 11). In particular, one  
25 skilled in the art would have recognized the advantage of using a valve with

1    a dip tube and vapor tap in allowing for more of the contents of the aerosol  
2    container described at, e.g., Fig. 12 and 13 of Frutin I, to be expelled.

3           We affirm the Examiner's rejection of claims 12 and 13 under 35  
4    U.S.C. § 103(a) over the combination of Frutin I and Kohler.

5    C.    *Frutin I, Kohler, and Berg*

6           Claim 14 is rejected under 35 U.S.C. § 103(a) as being unpatentable  
7    over Frutin I in view of Kohler as applied to claims 12 and 13 and further in  
8    view of Berg. (Answer at 5-6).

9           Claims 14 recites the limitations of claims 1, 12, and 13 and further  
10   requires that "the quantity of gas expelled from the container when the valve  
11   is opened is greater than 0.5 cubic centimeters per 1 cubic centimeter of  
12   liquid beverage when measured at atmospheric pressure and 20° C."

13           The Examiner acknowledges that Frutin I "is silent in teaching any  
14   particular amount of gas discharged with the liquid." The Examiner notes  
15   however that Frutin I teaches that the amount of gas expelled when liquid is  
16   expelled (i.e., the density of the dispensed beverage) is dependent upon the  
17   size of the headspace and the pressure of the gas in the headspace. (Answer  
18   at 5, FF 14).

19           The Examiner found that Berg shows conventional effervescent  
20   beverages having a 1:1 ratio of gas per volume of liquid and reasoned that  
21   one skilled in the art therefore would have sufficient reason to use such a  
22   ratio for beverage dispensing. Farr does not disagree with the Examiner's  
23   finding or otherwise argue that it would not have been obvious to use the  
24   claimed ratio in dispensing the beverage of Frutin I. Farr has not argued that  
25   the ratio of claim 14 gives anything other than a predictable result.

1           We affirm the Examiner's rejection of claim 14 under 35 U.S.C.  
2       § 103(a) as being unpatentable over Frutin I in view of Kohler as applied to  
3       claims 12 and 13 and further in view of Berg.

4       D.     *Frutin I and Frutin II*

5           Claims 17 and 18 are rejected under 35 U.S.C. § 103(a) as being  
6       unpatentable over Frutin I as applied to claims 1, 3, 5-8, 15, and 16 and  
7       further in view of Frutin II. (Answer at 6-7).

8           Claim 17 recites that "the sparingly soluble effervescent inducing gas"  
9       of claim 1 "is contained in a widget that releases its contents into the  
10      container when the valve is opened" and claim 18 states that the widget may  
11      also contain a concentrated flavour that is released into the container when  
12      the valve is open.

13          As we understand it, a widget, as used in the present claims, is a  
14      device within the container that releases gas into the beverage. (See FF 25).

15          As the Examiner notes, Frutin I teaches that the beverage container  
16      may be fitted with a device for injecting flavored liquid into the container  
17      and directs the reader to the devices of Frutin II. As further noted by the  
18      Examiner, Frutin II teaches a device for releasing gas or a mixture of a gas  
19      and flavored liquid into a container upon releasing the pressure within the  
20      container. (Answer at 6; FF 27). Such a device meets the requirements of a  
21      "widget" as that term is used in claims 17 and 18.

22          The Examiner reasoned that it would have been obvious to include a  
23      widget such as the one taught in Frutin II within the beverage container of  
24      Frutin I since Frutin I specifically suggests using such a device. We agree.

1           Farr argues that “[t]he ‘605 reference is designed to release fluid into  
2 a liquid.” (Br. at 15). To the extent Farr is arguing that a gas cannot be  
3 contained in the device (widget) of Frutin II, we do not agree. Frutin II  
4 discusses, e.g., that the “fluid” released into the container from the device  
5 may be a liquid, a gas, or a liquid/gas mixture. (Frutin II at 14; FF 27).

6           We affirm the Examiner’s rejection of claims 17 and 18 under 35  
7 U.S.C. § 103(a) as being unpatentable over Frutin I as applied to claims 1, 3,  
8 5-8, 15, and 16 and further in view of Frutin II.

9        *E. Hoffman and Denton*

10          Claims 1, 4, 9, and 10 are rejected under 35 U.S.C. § 103(a) as being  
11 unpatentable over Hoffman in view of Denton. (Answer at 7-8).

12          As noted by the Examiner, Hoffman teaches a container for a  
13 beverage where the beverage is a liquid, such as coffee, cola, or root beer,  
14 containing pressurized oxygen and where the beverage is stored under a  
15 pressure of 2.0 to 6.0 atmospheres to increase the solubility of the dissolved  
16 oxygen. (Hoffman at 2:31-42 and 4:60-67; FF 30).

17          The contents of the container may be released by spraying which, as  
18 the Examiner observes, “would involve a valve structure”. (Hoffman at  
19 2:20-30 and Answer at 7; FF 31).

20          The Examiner acknowledged that “Hoffman is silent in teaching the  
21 particular temperature at which the beverage is stored [e.g., 5-15° C] and  
22 that the valve structure is *one which is designed to be* opened via the  
23 consumer’s mouth as recited in claim 1...” (Answer at 7).

24          The Examiner relies upon Denton as teaching a fluid delivery valve  
25 which is designed to be used in fluid containing devices such as drinking

1 bottles. The valve is designed to be opened by a user's mouth and gives the  
2 advantage of allowing for one hand or hands-free use. (Denton at 1:25-43;  
3 FF 33). The valve is said to be useful in a pressurized bottle. (Denton at  
4 2:24-26; FF 34) and to allow for a high flow rate. (Denton at 2:17-20; FF  
5 35).

6 The Examiner reasoned that it would have been obvious to use the  
7 Denton valve in the Hoffman beverage dispenser for the reason that it is  
8 "easy to use, inexpensive, does not leak, and can be used in combination  
9 with a variety of pressurized containers" and offers the advantage of hands  
10 free use (Answer at 7-8).

11 As to the limitation that "the beverage is held under a gaseous  
12 pressure in the headspace of at least 2.5 atmospheres gauge at 5 to 15°C,"  
13 the Examiner noted that the claimed pressure of at least 2.5 atmosphere is  
14 taught. The Examiner reasons that root beer, for example, which is a  
15 beverage discussed in Hoffman, is normally chilled and would be at the  
16 temperature recited.

17 Farr notes that the beverages found in the dispensers of Hoffman are  
18 used for "solutions in remediating mouth odor." (Br. at 17). However, such  
19 solutions, e.g., water, coffee, and root beer, are beverages within the scope  
20 of the present claims. The fact that the Hoffman beverages are said to  
21 achieve a result not contemplated by Farr is not relevant to the issues before  
22 us.

23 Farr argues that neither Hoffman nor Denton is directed to producing  
24 an effervescent beverage. We disagree. The Examiner has pointed out that  
25 Hoffman, like Farr, discloses dissolving oxygen in the beverage. (FFs 3 and

1    30). Such a disclosure is sufficient to support the Examiner's determination  
2    that Frutin I teaches "a liquid having a sparingly soluble effervescence  
3    inducing gas dissolved therein" as required by claim 1. Farr has not directed  
4    us to evidence showing to the contrary.

5                 The Examiner does not rely upon Denton for showing an effervescent  
6    beverage but for a hands free valve. Nonetheless, we note that Denton is  
7    said to be useful as a valve for pressurized bottles.

8                 Farr argues that the valve of Denton "wouldn't be expected to  
9    withstand the pressure of 2.5 bar in particular because bracing member 47  
10   would more than likely blow out of the housing 43 since the member is only  
11   held in place by friction (please see column 4, lines 1-4 and lines 25-31)."’  
12   (Br. at 17). Farr has not directed us to evidence supporting this  
13   characterization of the Denton valve and thus we do not accept it as  
14   accurate. Moreover, we note that Denton states that the valve can be used in  
15   a pressurized bottle. Farr has not shown or even argued that it would have  
16   been beyond the skill of the person having ordinary skill in the art to allow  
17   for proper valve placement for the pressure selected.

18                 We affirm the Examiner's rejection of claims 1, 4, 9, and under 35  
19   U.S.C. § 103(a) as being unpatentable over Hoffman in view of Denton.

20                 Hoffman, Denton, and Bergman

21                 Claim 11 is rejected under 35 U.S.C. § 103(a) as being unpatentable  
22   over Hoffman in view of Denton as applied to claims 1, 4, 9, and 10 and  
23   further in view of Bergman. (Answer at 8-9).

24                 Claim 11 requires an actuator means which "includes a button  
25   mounted in the outlet portion, the button being movable between a valve-

Appeal 2007-2488  
Application 10/081,483

1 closed position and a valve-open position to which it can be moved by a  
2 biting action applied to the outlet portion."

3 The Examiner found, and Farr does not contest, that Bergman teaches  
4 a bite valve for feeding water to an animal that is operated by biting on a  
5 button such that the amount of beverage dispensed is dependent upon the  
6 amount of biting pressure. (Answer at 8-9).

7 The Examiner reasoned that one skilled in the art would have had  
8 reason to use such a button type valve release which would be equivalent to  
9 the type of valve taught in Denton which can also be operated by the mouth.  
10 (Answer at 8-9). One skilled in the art would thus use the button valve of  
11 Bergman for the same reason one would use the valve of Denton, i.e., ease  
12 of consumption of the beverage.

13 Farr notes that the valves used in the dispensers of Bergman are not  
14 said to be under pressure. However, Bergman is not relied upon by the  
15 Examiner to show pressurization but rather for its teaching of a hands free  
16 valve for dispensing a beverage. Combining the beverage dispenser of  
17 Hoffman with the hands free valves of either Denton or Bergman to arrive at  
18 the beverage product claimed appears to be nothing more than combining  
19 known elements for their known purposes. Farr has not directed us to  
20 evidence showing that it has obtained any unpredictable result or that using  
21 the valves of Bergman in a pressurized dispenser as shown in Hoffman was  
22 beyond the technical grasp of one having ordinary skill in the art.

23 Farr argues that the three references the Examiner combines relate to  
24 different subject matter. Farr characterizes Hoffman as disclosing a  
25 halitosis alleviating beverage, Denton as disclosing the use of its valve for

Appeal 2007-2488  
Application 10/081,483

1 dispensing fluids to “those typically required to wear protective suits” and  
2 Bergman at disclosing a valve of “the type found in a bird, dog, or gerbil  
3 cage.” (Br. at 19, original emphasis). First we note that Farr’s  
4 characterization does not take into account the full scope of each references.  
5 For instance, Hoffman discloses a variety of beverages having oxygen  
6 dissolved therein (FF 30) and Denton discusses that the valve it discloses is  
7 beneficial for providing beverages in other applications where it is useful to  
8 have a hand or both hands free, e.g., riding a bicycle or driving a car.  
9 (Denton at 1:21-30). Bergman does not discuss or otherwise limit the  
10 usefulness of the valves it discloses to bird, dog, or gerbil cages.

11 All of the references the Examiner relies upon are directed to  
12 beverage dispensing. One skilled in the art would have had reason to look to  
13 the prior art discussing beverage dispensing when looking to improve or  
14 modify the beverage dispenser of Hoffman. Even if it could be said that the  
15 reference are in different technical fields, one skilled in the art would  
16 recognize that the valves used in the beverage dispensers of Denton and  
17 Bergman could be used to improve the beverage dispensers of Hoffman in  
18 ways similar to those described, e.g., to allow for hands free use.

19 We affirm the Examiner’s rejection of claim 11 under 35 U.S.C. §  
20 103(a) as being unpatentable over Hoffman in view of Denton as applied to  
21 claims 1, 4, 9, and 10 and further in view of Bergman.

22

1      **VI. Order**

2            Upon consideration of the record and for reasons given, it is  
3            ORDERED that the Examiner's rejection of claims 1-3, 5-8, 15, and  
4        16 under 35 U.S.C. § 102(b) as being anticipated by Frutin I "as evidenced  
5        by Rudick" is AFFIRMED;

6            FURTHER ORDERED that the Examiner's rejection of claims 12 and  
7        13 under 35 U.S.C. § 103(a) as being unpatentable over Frutin I and Rudick  
8        as applied to claims 1, 3, 5-8, 15, and 16 and further in view of Kohler is  
9        AFFIRMED;

10          FURTHER ORDERED that the Examiner's rejection of Claim 14  
11        under 35 U.S.C. § 103(a) as being unpatentable over Frutin I in view of  
12        Kohler as applied to claims 12 and 13 and further in view of Berg is  
13        AFFIRMED;

14          FURTHER ORDERED that the Examiner's rejection of claims 17 and  
15        18 under 35 U.S.C. § 103(a) as being unpatentable over Frutin I as applied to  
16        claims 1, 3, 5-8, 15, and 16 and further in view of Frutin II is AFFIRMED;

17          FURTHER ORDERED that the Examiner's rejection of claims 1, 4,  
18        9, and 10 under 35 U.S.C. § 103(a) as being unpatentable over Hoffman in  
19        view of Denton is AFFIRMED;

20          FURTHER ORDERED that the Examiner's rejection of claim 11  
21        under 35 U.S.C. § 103(a) as being unpatentable over Hoffman in view of  
22        Denton as applied to claims 1, 4, 9, and 10 and further in view of Bergman is  
23        AFFIRMED; and

Appeal 2007-2488  
Application 10/081,483

1           FURTHER ORDERED that no time period for taking any subsequent  
2 action in connection with this appeal may be extended under 37 C.F.R.  
3 § 1.136(a)(1) (iv) 2006).

AFFIRMED

SD

Appeal 2007-2488  
Application 10/081,483

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